

Chapter 3

Affected Environment

Introduction

In this chapter, SEA describes the existing social, economic, and environmental conditions in the Study Area, which serve as a baseline for comparing the potential effects of the Proposed Action and alternatives. To describe the existing conditions under which the Proposed Action would take place, SEA identified 13 resource-specific topics. SEA discusses these resources in individual sections of this chapter and each section identifies the geographic area analyzed in the EIS. Specific topics discussed include rail operations and safety, transportation systems (highways, railroads, waterways, and airports), hazardous waste sites, land use, socioeconomic, environmental justice, energy, air quality and climate, noise, vibration, biological resources, water resources, and cultural resources.

The Study Area consists of a portion of the Chicago metropolitan area, which includes the City of Chicago and approximately 100 smaller communities in southeast Lake, Cook, DuPage, and Will counties in Illinois and Lake County in Indiana. The Study Area includes a central urbanized area—downtown Chicago—with a relatively high population density, and the surrounding counties that have strong social, economic, and cultural ties to the central urbanized area. These ties are measured by commuting patterns, employment locations, and sense of place. The Study Area also includes the communities outside of Chicago that may be affected by the changes to rail operations associated with the proposed acquisition of EJ&E by CN. The EJ&E rail line includes a number of spurs and offshoot rail lines from the main rail line which are included in the Proposed Action.

The Illinois Department of Commerce and Economic Opportunity (IDCEO) describes the Chicago metropolitan area as the industrial and geographic heart of the nation, stating that “nearly half of all the goods and services created in the U.S. are produced within one day’s drive of the [Illinois] state line” (IDCEO 2007), much of which is based on technology, freight, manufacturing, and tourism. “Twenty-five percent of the largest 100 employers in the region are in electronics, computers, or telecommunications” (CMAP 2006a). Thirty Fortune 500 companies and 12 Fortune Global 500 companies have headquarters in the region, and 98 corporate headquarters are located in the region (CMAP 2006a). In 2007, *Crain’s Chicago Business* listed more than 170 publicly-held firms headquartered in the Study Area (Chicago Traveler 2008). Sixty-four of these firms have headquarters within the Chicago city limits, and 19 are located in the communities adjacent to the EJ&E rail line. Aside from Chicago, other rapidly growing Illinois communities include Frankfort, New Lenox, Plainfield, Richton Park, Matteson, Hawthorn Woods, Lockport, Wayne, Lynwood, and Romeoville.

Lake County, Indiana, also is home to several major employers and large corporations. The steel industry employs more than 15,000 workers, and the health maintenance, oil refining, and gaming industries also employ a large number of workers (U.S. Department of Labor, Bureau of Labor Statistics 2008).

The specific resources discussed in Chapter 3 and the sections in which they are discussed are as follows:

- **Section 3.1, Rail Operations, and Section 3.2, Safety,** present the existing conditions related to freight and passenger railroads in the Study Area, including systems, operations, and safety. These two sections explain the interface between the EJ&E and

CN rail lines with other modes of transportation, the safety issues related with this interface, and the safety issues associated with hauling potentially hazardous materials.

- **Section 3.3, Transportation Systems**, discusses other modes of transportation and how they coexist and interact with the EJ&E and CN rail lines. SEA discusses the highway system, emergency response, navigable watercourses, and airports in the Study Area.
- **Section 3.4, Hazardous Waste Sites**, presents existing conditions related to hazardous waste and potentially hazardous materials sites.
- **Section 3.5, Land Use**, discusses land use patterns, development trends, land use plans, zoning regulations, prime farmlands, and public lands in the Study Area.
- The next two sections are related to the communities and people in the Study Area. **Section 3.6, Socioeconomics**, discusses existing conditions related to demographics, economics, employment, tax base, housing, and community facilities in the Study Area. **Section 3.7, Environmental Justice**, discusses low-income populations and minority populations.
- **Section 3.8, Energy**, discusses energy use, energy resources, and the recyclable commodities remaining from rail line operations.
- **Section 3.9, Air Quality and Climate**, presents the existing conditions for air quality in the Study Area, including a description of air toxics and the relationship of emissions of greenhouse gases to climate.
- **Section 3.10, Noise and Vibration**, presents the existing conditions related to noise and vibrations along the potentially affected rail lines.
- **Section 3.11, Biological Resources**, discusses threatened and endangered species, vegetation and wildlife resources, and natural areas in the Study Area.
- **Section 3.12, Water Resources**, discusses water quality standards and the existing conditions of groundwater, floodplains, wetlands, and surface waters.
- **Section 3.13, Cultural Resources**, presents the cultural resources potentially affected by the Proposed Action, as well as the identified historic districts and historic properties in the Study Area.

3.1 Current Rail Operations

This section introduces the regional freight and passenger rail systems and details the current freight and passenger rail operations potentially affected by the Proposed Action.

3.1.1 Regional Rail Systems

Chicago, the nation's preeminent rail hub, includes 2,800 miles of existing rail network, encompassing an area of 16,000 acres. The most recent data available from the Chicago Region Environmental and Transportation Efficiency Program (CREATE) indicates that 37,500 rail cars per day travel through the Chicago hub each year, with this number expected to increase to 67,000 per day by 2020. Over the next 20 years, demand for freight rail service through Chicago is expected to nearly double. The existing system experiences motorist, passenger, and freight rail delays and congestion on a daily basis (CREATE 2005).

Chicago is the only city in the country where six major North American railroads meet to interchange freight. Seven of the rail lines entering Chicago are part of the Strategic Rail Corridor Network, rail lines that are critical to national defense. Chicago today is the busiest rail gateway in the United States, accounting for one-third of the nation's freight rail traffic (CREATE 2005).

In addition to freight rail, Metra, the Chicago Transit Authority (CTA), and the Northern Indiana Commuter Transportation District (NICTD) provide commuter rail service in the Chicago metropolitan area. The 495-mile commuter rail Metra system serves 230 stations in the counties of Cook, DuPage, Lake, Will, McHenry, and Kane, Illinois, some shared with freight rail (Metra 2008b). CTA operates 1,190 rapid transit cars over eight routes and 222 miles of track, none of which interacts with the freight rail network. CTA trains provide about 500,000 customer trips each day and serve 144 stations (CTA 2008). NICTD operates the South Shore Line, a commuter rail line, in conjunction with Metra. The South Shore Line comprises 90 miles of line and 20 stations connecting northwest Indiana to Chicago (Kenosha-Racine-Milwaukee Commuter Link 2006). Freight also operates on the South Shore Line.

Beginning in 1889, EJ&E was assembled from various predecessor railroads, including the Joliet, Aurora & Northern Railroad; the Gardner, Coal City & Northern Railroad; the Waukegan & Southwestern Railroad; and the Gary, Whiting, and South Chicago Railroad (EJ&E 2008a). The result was a railroad that virtually encircled Chicago from Waukegan, Illinois, to the north, through Joliet, Illinois, on the south, and through Griffith, Indiana, on the eastern flank, before finally reaching Gary, Indiana (EJ&E 2008b). All railroads entering or leaving Chicago intersected with the EJ&E rail line, and continue to today.

Freight railroads use the EJ&E rail line as a bypass around Chicago. Without the EJ&E rail line, these carriers would need to bring their trains into the city center and return on another rail corridor. By using the EJ&E rail line, carriers move trains directly to their destinations without passing through Chicago. For instance, UP and BNSF intersect with the EJ&E rail line at West Chicago and Eola, Illinois, respectively, and use the EJ&E rail line to deliver coal to power plants located in Wisconsin or Joliet, Illinois, which saves considerable route miles and reduces net shipping rates.

For the past 150 years, the railroad industry has been strongly linked with the establishment and growth of the Chicago area. The rail industry provides consumers in the Chicago metropolitan area with a cost-effective and competitive transportation system. Railroads provide a method of transportation that is three to four times more efficient in terms of fuel usage than trucking (Association of American Railroads [AAR] 2008).

The CN and EJ&E rail lines in the Chicago metropolitan area have been divided into segments to facilitate understanding of the analyses in this Draft EIS. Figure 3.1-1, below, shows these segments and the rail yards which are referred to throughout this Draft EIS, as appropriate.

3.1.2 Current Freight Rail Operations

3.1.2.1 Current EJ&E Train Operations

EJ&E has approximately 200 miles of track that run along Lake Michigan from Waukegan to North Chicago and then swing east forming a large arc around the perimeter of Chicago before reaching Kirk Yard in Gary, Indiana. The EJ&E rail line is composed of two divisions (operating units) that both begin in Joliet, Illinois. The Western Division extends from Joliet north through Aurora and Naperville, West Chicago, Hoffman Estates, Barrington, Mundelein, and Libertyville, Illinois before reaching Waukegan, Illinois. The Eastern Division begins in Joliet and passes through Frankfort, Matteson, and Chicago Heights, Illinois, and Griffith, Indiana, before reaching Gary. The EJ&E rail line is shown in Figure 2.1-1, Chicago Regional Rail System, in Chapter 2.

3.1.2.2 Yard Operations

EJ&E operates out of three rail yards. The major yards are Kirk Yard, located at the eastern end of the railroad near Lake Michigan and north of Gary, Indiana, and East Joliet Yard, located just east of the Des Plaines River within the city limits of Joliet. The third yard, the Whiting Yard, is located just southeast of Kirk Yard, and is used primarily to serve local customers (see Figure 1.2-2, Yard Locations, in Chapter 1).

3.1.2.3 Local Train Operations

What is a classification yard?

A classification yard is a facility used for sorting and grouping rail cars in accordance with movement requirements, such as the destination point of the rail cars.

What is a hump?

Some classification yards use an artificial hill, or hump, over which rail cars are first pushed and then released to roll by gravity onto specific tracks.

Kirk Yard, EJ&E's major classification yard, located in Gary at the eastern end of the EJ&E system, receives, sorts, and then assembles trains for destinations located in the eastern portion of the EJ&E rail system. Kirk Yard is composed of several smaller yards. Each serves a distinct function. The South Yard and the North Yard handle arriving trains and accommodate departing trains when the classification process is complete. Toward the east end of the yard is a low hill that is called a "hump." Strings of rail cars are pulled east from the South Yard, and then shoved west over this hump. At the crest of the hump, a member of the train crew uncouples the car or block of cars on top of the hump and these cars roll west into one of 42 fairly short "bowl" tracks, otherwise known as the Hump Yard. These tracks are called "bowl" tracks as they are designed in the shape of a saucer to

prevent cars from rolling out the west end of these bowl tracks. The speed of each car or block of cars is regulated by car retarders located just west on the downhill side of the hump. Once the hump classification process is completed, these smaller groups of cars are pulled west into the West Yard and aggregated into blocks of intermediate lengths. Following this process, these longer blocks are assembled into trains in the North Yard or the South Yard and readied for departure. The D&R Yard, located in the northwest corner of Kirk Yard, handles railcars for local industry.

The road locomotives are taken off the inbound train at the east end of either the North or South Yard and taken to the locomotive servicing tracks for servicing. Once the outbound train is readied, the outbound locomotives are taken to the west end of either the North or South Yards and placed on the outbound train.

EJ&E switch engines, many of which are equipped with remote-control functionality, are used in various capacities throughout the yards. To handle the pulling and then shoving of cars up and over the hump, the two-locomotive “hump” engine precisely controls the speed of the cars. At the west end of the yard, EJ&E uses several “trim” engines to pull blocks of cars first out of the hump and then out of the West Yard and then ultimately shoves these cars into the North and/or South Yards.

EJ&E operates Kirk Yard 24 hours per day, seven days a week, and classifies approximately 685 cars per day. CN has indicated that Kirk Yard, as it is currently configured, has the capacity to handle up to three times the current volume. The ability to use Kirk Yard to handle increased volume is one of the purposes of the Proposed Action.

Capacities and configurations for the Kirk Yard are as follows:

- The South Yard has five long tracks ranging in length from 7,200 to 8,200 feet.
- The North Yard has 14 tracks ranging in length from 3,800 to 5,700 feet.
- The West Yard has 16 tracks ranging in length from 1,600 to 2,400 feet.
- The Hump Yard has 42 tracks ranging in length from 2,400 to 4,300 feet.
- The D&R Yard has 11 tracks ranging in length from 3,800 to 4,800 feet.

According to CN’s application, 11.8 trains per day (TPD) arrive and depart Kirk Yard each day from the EJ&E mainline and 3.5 TPD from the Lakefront Branch Main. Therefore, EJ&E handles a total of 15 to 16 trains per day at Kirk Yard; seven to eight trains inbound and seven to eight trains outbound each day. This indicates that EJ&E must prepare an outbound train every 3 hours. In addition, CN states that EJ&E switches 685 cars per day over the hump (Applicants 2007a).

Several local trains operate daily from East Joliet Yard. These include three local trains that travel the Illinois River Line, providing rail service to various local industries on this line. A fourth local train performs switching assignments between Joliet and West Chicago. This local train spends up to four hours at or near Walker, Illinois, dropping off and picking up cars for industries located north of Van Dyke Road.

At Waukegan, Illinois, one switch engine serves industries between Waukegan and West Chicago.

3.1.2.4 Yard Transfer Operations

EJ&E moves trains between the Kirk and East Joliet yards. There are also daily transfers of trains as-needed to NS at Ivanhoe, Indiana, to UP at Chicago Heights, Illinois, and to CN at Matteson, Illinois. Operating out of East Joliet Yard (see Figure 2.2-8, East Joliet Yard, in Chapter 2), EJ&E also delivers and picks up trains at Eola, Illinois, for BNSF, at West Chicago, Illinois, for UP, and the following Illinois rail stations: Munger for CN, Spaulding for CPR, and Leighton for CN.

3.1.2.5 Trackage Rights Trains

EJ&E also operates several trackage rights trains each day as follows:

UP: EJ&E picks up and delivers the following trains:

What are trackage rights?

Trackage rights are the right (or combination of rights) of one railroad to operate over the designated trackage of another railroad.

- A coal train for movement between West Chicago and Joliet, Illinois, for delivery to Midwest Generation’s Will County facility on the Romeoville Branch. EJ&E brings back the empty train cars to West Chicago.

- A coal train for movement between West Chicago and Joliet, Illinois, for delivery to Midwest Generation's Plains facility located along the Des Plaines River in south Joliet. This facility is accessed from the East Branch that connects with the EJ&E mainline near the middle of East Joliet Yard. EJ&E brings back the empty train cars to West Chicago.
- An auto train, which is made up primarily of automobiles or automotive parts, for movement between West Chicago and Chicago Heights, Illinois, or Griffith, Indiana. EJ&E brings back the train to West Chicago when the outbound auto train has been readied.
- Twice a week, a coal train is delivered to the South Shore in Indiana that is accessed by the City Track near Control Point (CP) Stockton in Indiana. EJ&E brings the empty train cars back to West Chicago.

What is a Control Point (CP)?
A CP is a location where remote control operators divert trains onto different tracks.

BNSF: According to its trackage rights agreement with EJ&E, BNSF is allowed to operate nine trains daily on EJ&E's tracks. Under this agreement, EJ&E picks up and delivers the following BNSF trains:

- A coal train between Eola and Leithton, Illinois, delivering this train to CN for further delivery to a power plant in Wisconsin. EJ&E also brings back the empty train cars.
- Two to three trains daily for movement between Eola, Illinois, and East Bridge Junction. EJ&E also brings the train back to Eola when the outbound train has been readied.

CN: EJ&E picks up and delivers approximately two round-trip CN trains each day between Griffith, Indiana, and Matteson, Illinois.

CPR: EJ&E picks up and delivers approximately two trains each week between Munger and Spaulding, Illinois.

3.1.2.6 Interlockings

The EJ&E rail line crosses several other railroads both at-grade and on grade separations. The movement of rail traffic through these intersections, called interlockings, is governed similarly to a highway intersection. Traffic signals show a green light in one direction and a red light in another direction to eliminate conflicting movements. Railroad interlockings differ slightly in that priority can be assigned by the interlocking controller. In other words, the controlling railroad determines which train goes first.

What is an interlocking?
An interlocking is an arrangement of signal equipment so interconnected that train movements must succeed each other in safe, proper sequence. It may be operated manually or automatically.

Even if one railroad controls an interlocking, a second railroad may be responsible for maintenance. Therefore, it is important to understand which railroad controls or maintains each of the rail/rail at-grade crossings (interlockings) along the EJ&E rail line. From north to south, these crossings are listed in Table 3.1-1, below, along with the number of freight and passenger trains that move through each crossing daily. The table indicates if the crossing is grade-separated.

Table 3.1-1. CN and EJ&E Rail Line Segments in the Chicago Metropolitan Area							
Location	EJ&E Milepost and Division	At Grade?	Crossing Railroad	Current EJ&E (TPD)	All Trains Crossing EJ&E		Controls Interlocking
					Freight Trains (TPD)	Passenger ^a Trains (TPD)	
Illinois							
Upton	Western 67.1	Yes	UP	3.2	23	0	Automatic
Rondout	Western 65.5	Yes	CP/Metra/ Amtrak	3.2	10	Metra = 46 Amtrak = 16	Metra
Leithton ^b	Western 60.3	Yes	CN	5.3	3.3	22	CN
Barrington	Western 49.6	Yes	UP/ Metra	5.3	5-6	62	EJ&E
Spaulding	Western 37.5	Yes	CP/Metra	5.5	4	49	Metra/CP
Munger	Western 35.1	No	CN	5.5	NA	No	NA
West Chicago	Western 28.9	Yes	UP/ Metra	4.4	60	52	EJ&E
Eola	Western 21.3	No	BNSF/ Metra	10.7	60	Metra = 66 Amtrak = 8	NA
Joliet	Western 1.7	No	BNSF	18.5	NA	No	NA
Joliet	Western 1.5	No	CN/UP/ Amtrak	18.5	NA	Metra = 6 Amtrak = 10	NA
Rock Island Jct.	Eastern 0.8	Yes	Metra/ CSX	6.4	6	46	Metra/CSX
Brisbane	Eastern 8.3	No	NS/Metra	6.4	NA	4	NA
Matteson	Eastern 21.6	No	CN/Metra/ Amtrak	6.4	20	Metra= 61 Amtrak = 6	NA
Chicago Heights	Eastern 25.2	Yes	UP	8.6	50	No	EJ&E
Chicago Heights	Eastern 25.7	No	CHTT	10.2	NA	No	NA
Indiana							
Dyer	Eastern 31.3	Yes	CSX/ Amtrak	10.2	2	Amtrak = 2	EJ&E Automatic
Hartsdale	Eastern 33.7	Yes	NS	10.2	2	No	EJ&E Automatic
Hartsdale	Eastern 34.1	No	NS	10.2	NA	No	NA
Griffith	Eastern 36.2	Yes	CN	10.2	25	No	EJ&E
Van Loon	Eastern 39.8	Yes	NS	7.6	26	No	NS
Ivanhoe	Eastern 42.5	Yes	CSX & IHB	9.7	10	No	CSX/IHB
Cavanaugh Area	Eastern 42.5	No	South Shore	9.8	NA	NICTD = 38	NA
Stockton Area	Eastern 44.0 to 44.4	No	NS/CSX/ Amtrak	11.8	NA	Amtrak = 12	NA

Source: Applicants (2008b), letter from Paul A. Cunningham, Counsel for Canadian National Railway Company and Grand Trunk Corporation, Harkins Cunningham LLP, to Victoria J. Rutson, Chief, Section of Environmental Analysis, Surface Transportation Board, in response to the Board's Information Request dated December 18, 2007, Exhibit A (EJ&E track charts and timetables), January 28, 2008.

Notes:

^a Metra unless otherwise noted.

^b Most of the rail traffic would be diverted onto the EJ&E at Leithton.

3.1.2.7 Train Staging Locations near Interlockings

Trains occasionally need to stop before rail/rail at-grade interlockings. Trains approaching an interlocking must observe stop signals and stop in a manner that avoids blocking nearby at-grade road crossings. These directives to stop can originate from signals at Control Points (CP) designed to control movement through the interlocking, or from specific instructions given to train crews.

What is a staging location?

A staging location is a location where trains can wait to proceed through a crossing without blocking other crossings.

Table 3.1-2, below, lists the nearest location along the EJ&E rail line at which a train can be held for opposing cross traffic at the interlocking ahead. The table indicates the train length that can be held between nearby at-grade road crossings in each direction from each interlocking. Current train lengths on the EJ&E rail line vary considerably, from between 2,600 to 8,000 feet. Train handling rules specify that a train must stop 200 feet from a crossing at each end of the train; therefore the actual distance between crossings is 400 feet more than shown in the table. These staging locations are shown in Figure 3.1-2 through Figure 3.1-7, following Table 3.1-2, below.

Table 3.1-2. Train Staging Locations and Train Lengths at or near At-Grade Rail Interlockings along the EJ&E Rail Line between Leithton and Kirk Yard				
Interlocking	EJ&E Leithton to Kirk Yard	EJ&E Kirk Yard to Leithton	Chicago Outbound	Chicago Inbound
Illinois				
Leithton	Along EJ&E: Butterfield Rd. to Lakeview Pkwy. = 6,170 ft	Along EJ&E: Diamond Lake Rd. to Allanson Rd. = 8,875 ft	Along CN: Butterfield Rd. to Hwy. 45 = 6,380 ft	Along CN: CP ^a Leithton to Allanson Rd = 3,150 ft
Barrington	Along EJ&E: Lake Zurich Rd. to Cuba Rd. = 5,600 ft	Along EJ&E: Main St. to Otis Rd. = 6,800 ft	Along UP: Eastern Ave. to Baldwin Rd. = 14,500 ft	Along UP: Hart Rd. to Cuba Rd. = 6,200 ft
Spaulding	Along EJ&E: CP Spaulding to Shoe Factory Rd. = 22,000 ft	Along EJ&E: W. Bartlett Rd. to Stearns Rd. = 6,200 ft	Along Metra: Naperville Rd. to S. Western Rd. = 8,050 ft	Along Metra: Gifford Rd. to St. Charles Rd. = 6,100 ft
West Chicago	Along EJ&E: CP West Chicago to Smith Rd. = 13,800 ft	Along EJ&E: Ann St. to Batavia Rd. = 14,930 ft	Along UPRR: W. Wood St. to Sunset Ave. = 6,990 ft	Along UPRR: CP West Chicago to W. Roosevelt Rd. = 13,000 ft
Rock Island Jct.	Along EJ&E: CP Rock Island Jct. to Woodruff Rd. = 7,860 ft	Along EJ&E: CP Rock Island Jct. to Rowell Ave. = 4,130 ft	Along Metra: CP Rock Island Jct. to Gougar Rd. = 14,500 ft	Along Metra: CP Rock Island Jct. to CP UD Tower = 5,200 ft
Chicago Heights	Along EJ&E: State St. to Cottage Grove Ave. = 4,880 ft	Along EJ&E: Euclid Ave. to Western Ave. = 7,580 ft	Along UP: E. 35 th St. to 1 st St. = 7,450 ft	Along UP: E. 12 th St. to E. Main St. = 12,800 ft
Indiana				
Dyer	Along EJ&E: CP Dyer to Airport Rd. = 11,700 ft	Along EJ&E: Torrence Ave. to E. Lincoln Hwy. = 7,530 ft	Along CSX: Sheffield Ave. to 45 th Ave. = 8,900 ft	Along CSX: Joliet St. to Novak Rd. = 6,250 ft
Hartsdale	Along EJ&E: Kennedy Ave. to CP Griffith = 8,250 ft	Along EJ&E: Airport Rd. to CP Dyer = 11,700 ft	Along NS: CP Hartsdale to Main St. = 6,960 ft	Along NS: CP Hartsdale to end of track = 7,000 ft
Griffith	Along EJ&E: CP Griffith to Kennedy Ave. = 8,250 ft	Along EJ&E: E. 40th Pl. to CP Van Loon = 8,050 ft	Along CN: CP Griffith to Kennedy Ave. = 6,540 ft	Along CN: S. Colfax St. to Hendricks St. = 9,600 ft
Van Loon	Along EJ&E: CP Van Loon to E. 40 th Pl. = 8,050 ft	Along EJ&E: W. 25 th St. to W. 15 th St. = 4,880 ft	Along NS: W. 25 th Ave. to Grand Ave. = 3,270 ft	Along NS: Clark Rd. to Chase St. = 4,880 ft
Ivanhoe	Along EJ&E: W. 15 th St. to W. 25 th St. = 4,880 feet	Along EJ&E: W. 5 th St. to CP Cavanaugh = 6,700 ft	Along IHB/CSX: CP Ivanhoe to CP Gibson = 9,550 ft	Along IHB/CSX: Clark Rd. to Chase St. = 4,570 ft

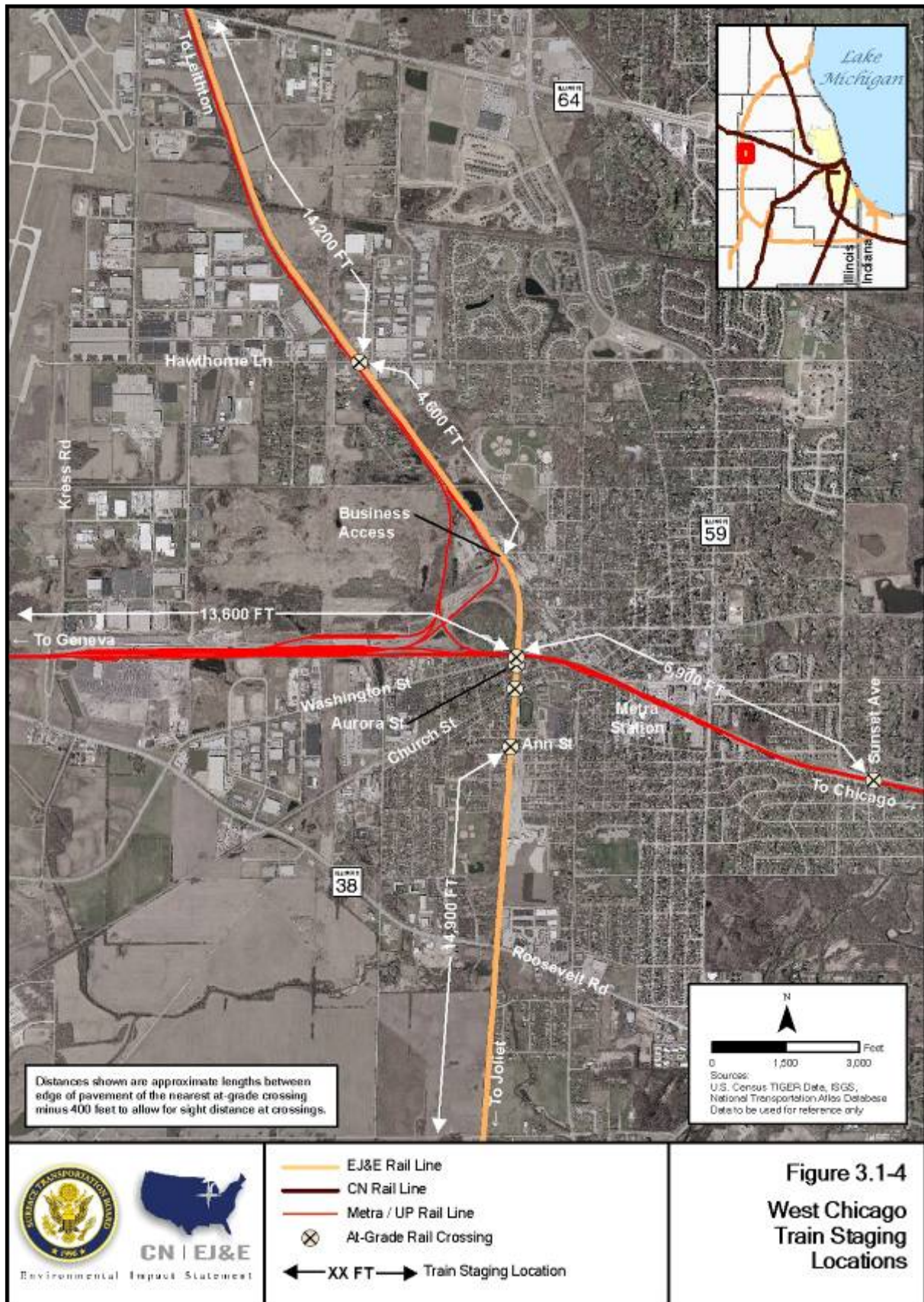
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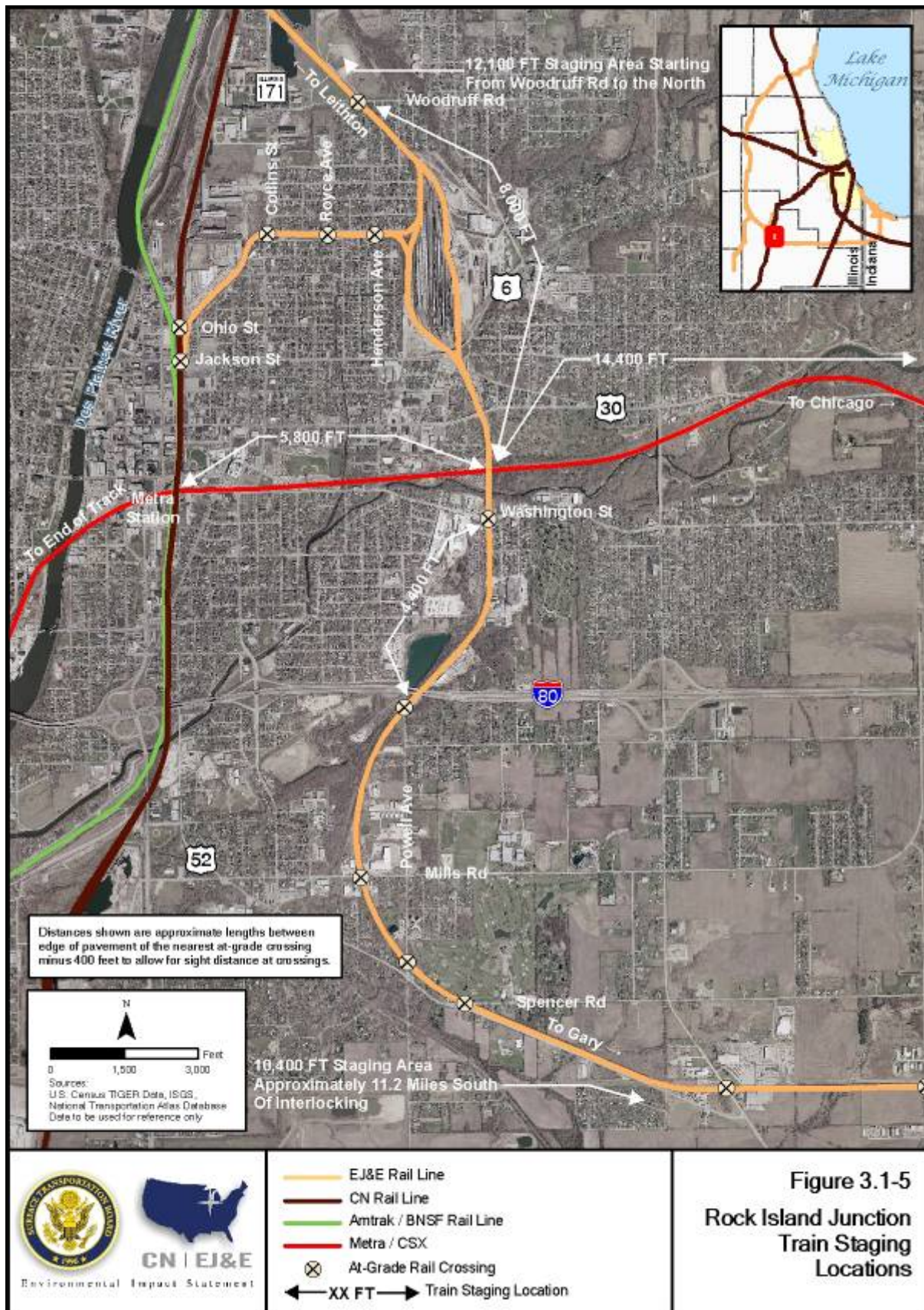
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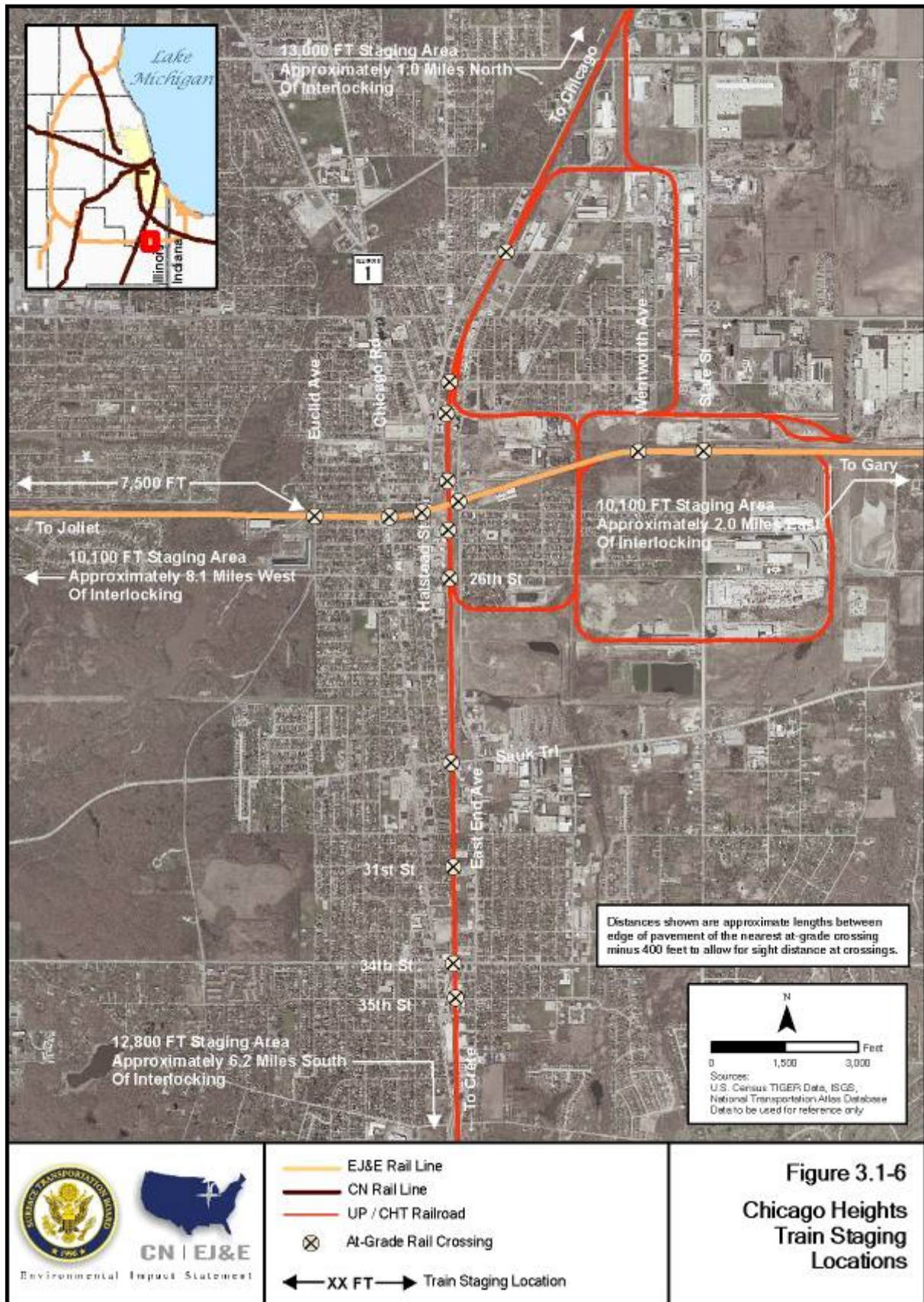
^a CP = Control Point

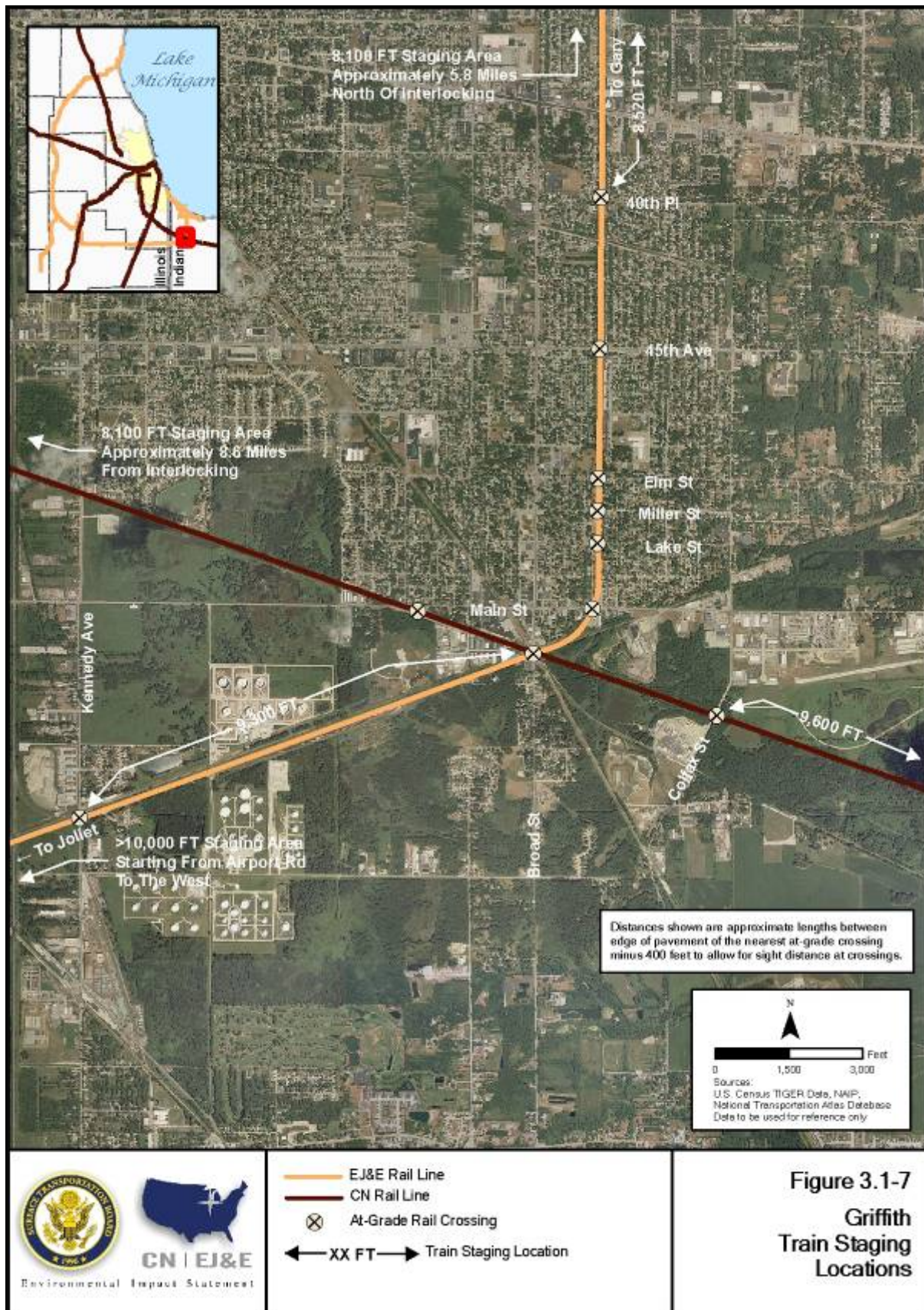












3.1.2.8 Train Staging Locations near Highway/Rail Crossings

In addition to staging locations for interlockings, EJ&E trains may also stage for operational reasons at the locations shown in Figure 3.1-8, following Table 3.1-3, below. Depending on the train's length, the train crew will advance a train through the crossing or, if the train is to be held momentarily, stop at one of these locations to avoid blocking highway/rail at-grade crossings. EJ&E rules state that a train crew cannot stage a train closer than 200 feet, front or rear, from a crossing. Table 3.1-3, below, shows the distance between crossings along the EJ&E rail line, and indicates whether or not there are potential staging locations between individual crossings, allowing for train lengths 500 feet less than the actual distance between the crossings. The table shows whether train lengths of 6,000, 8,000, or 10,000 feet could be accommodated, along with the total staging locations for these three train lengths. Figure 3.1-8, following Table 3.1-3, shows the potential staging locations along the EJ&E rail line.

Table 3.1-3. Potential Staging Locations for Trains (As a Function of Train Length) Operating on the EJ&E Rail Line Between Leithton and Kirk Yard							
Community	From Crossing	To Crossing	Distance (feet)	Train Staging Potential	6,000-foot Train	8,000-foot Train	10,000-foot Train
Illinois							
Mundelein	Allanson Rd.	Diamond Lake Rd.	9,275	YES	X	X	
	Diamond Lake Rd.	Ill Rte 83/60	565	NO			
	Ill Rte 83/60	Gilmer	11,170	YES	X	X	X
	Gilmer	Old McHenry Rd.	7,750	YES	X		
	Old McHenry Rd	Oakwood Rd.	3,750	NO			
Lake Zurich	Oakwood Rd.	East Main St.	6,760	YES	X		
	East Main St.	Old Rand Rd.	960	NO			
	Old Rand Rd.	Ela Rd.	4,790	NO			
	Ela Rd.	Cuba Rd.	4,170	NO			
	Cuba Rd.	Lake Zurich Rd.	6,050	NO			
Barrington	Lake Zurich Rd.	Northwest Hwy	1,605	NO			
	Northwest Hwy.	Hough St.	1,770	NO			
	Hough St.	UP RR Crossing	1,265	NO			
	UP RR Crossing	West Main St.	1,370	NO			
	West Main St.	Otis Rd.	7,310	YES	X		
	Otis Rd.	Penny Rd.	18,110	YES	X	X	X
	Penny Rd.	Sutton Rd.	2,660	NO			
	Sutton Rd.	Shoe Factory Rd.	10,865	YES	X	X	X
	Shoe Factory Rd.	Golf Rd.	6325	NO			
	Golf Rd.	Spaulding CP	16,275	YES	X	X	X
Bartlett	Spaulding CP	W. Bartlett Rd.	3,560	NO			
	W. Bartlett Rd.	Stearns Rd.	6,620	YES	X		
	Stearns Rd.	Army Trail Rd	9,470	YES	X	X	
	Army Trail Rd.	Smith Rd.	5,060	NO			
	Smith Rd.	Hawthorne	14,250	YES	X	X	X

**Table 3.1-3. Potential Staging Locations for Trains (As a Function of Train Length)
Operating on the EJ&E Rail Line Between Leithton and Kirk Yard**

Community	From Crossing	To Crossing	Distance (feet)	Train Staging Potential	6,000- foot Train	8,000- foot Train	10,000- foot Train
W. Chicago	Hawthorne	W. Grand Lake CP (Private Rd.)	5,010	NO			
	W. Grand Lake CP	W. Chicago CP W. Washington	2,030	NO			
	W. Washington	Church St.	660	NO			
	Church St.	Ann St.	1,165	NO			
	Ann St.	Batavia Rd.	15,340	YES	X	X	X
	Batavia Rd.	Diehl Rd.	14,910	YES	X	X	X
Aurora/Eola	Diehl Rd.	Liberty St.	11,500	YES	X	X	X
	Liberty St.	Ogden Ave.	8,310	YES	X	X	
	Ogden Ave.	83 rd St.	4,555	NO			
	83 rd St.	87 th St.	2,675	NO			
	87 th St.	W. Hafenrichter	3,435	NO			
	W. Hafenrichter	Wolf Crossing	4,375	NO			
	Wolf Crossing	W. 111 th St.	8,485	YES	X	X	
	W. 111 th St.	W. 119 th St.	5,280	NO			
Walker	W. 119 th St.	W. 127 th St.	5,480	NO			
	W. 127 th St.	W. 135 th St.	5,900	NO			
	W. 135 th St.	N. Van Dyke	4,465	NO			
	N. Van Dyke	W. 143 rd St.	1,420	NO			
	W. 143 rd St.	Naperville Rd.	3,755	NO			
	Naperville Rd.	W. Main St - 126	440	NO			
	W. Main St - 126	N. Center St.	570	NO			
	N. Center St.	N. Eastern Ave.	740	NO			
	N. Eastern Ave.	E. Lockport Rd.	1,540	NO			
	E. Lockport Rd.	E. Renwick Rd	7,290	YES	X		
	E. Renwick Rd.	Essington Rd.	3,900	NO			
	Essington Rd.	Division St.	4,345	NO			
Crest Hill	Division St.	Gaylord Rd.	2,620	NO			
	Gaylord Rd.	Oakland Ave.	12,410	YES	X	X	X
	Oakland Ave.	W. Bridge Jct. CP	6,970	YES	X		
	W. Bridge Jct. CP	E. Bridge Jct. CP	2,150	NO			
Joliet	E. Bridge Jct. CP	Woodruff Rd.	3,470	NO			
	Woodruff Rd.	N. Rock Is. CP	8,290	YES	X	X	
	N. Rock Is. CP	S. Rock Is. CP	555	NO			
	S. Rock Is. CP	E. Washington St.	635	NO			
	E. Washington St.	Rowell Ave.	4,475	NO			
	Rowell Ave.	Mills Rd.	3,670	NO			
	Mills Rd.	S. Rowell Ave.	1,985	NO			
	S. Rowell Ave.	Spencer Rd.	1,465	NO			
	Spencer Rd.	S. Briggs St.	5,680	NO			
	S. Briggs St.	Cherry Hill Rd.	4,045	NO			
	Cherry Hill Rd.	Cougar Rd.	5,280	NO			
	Cougar Rd.	Nelson Rd.	5,280	NO			

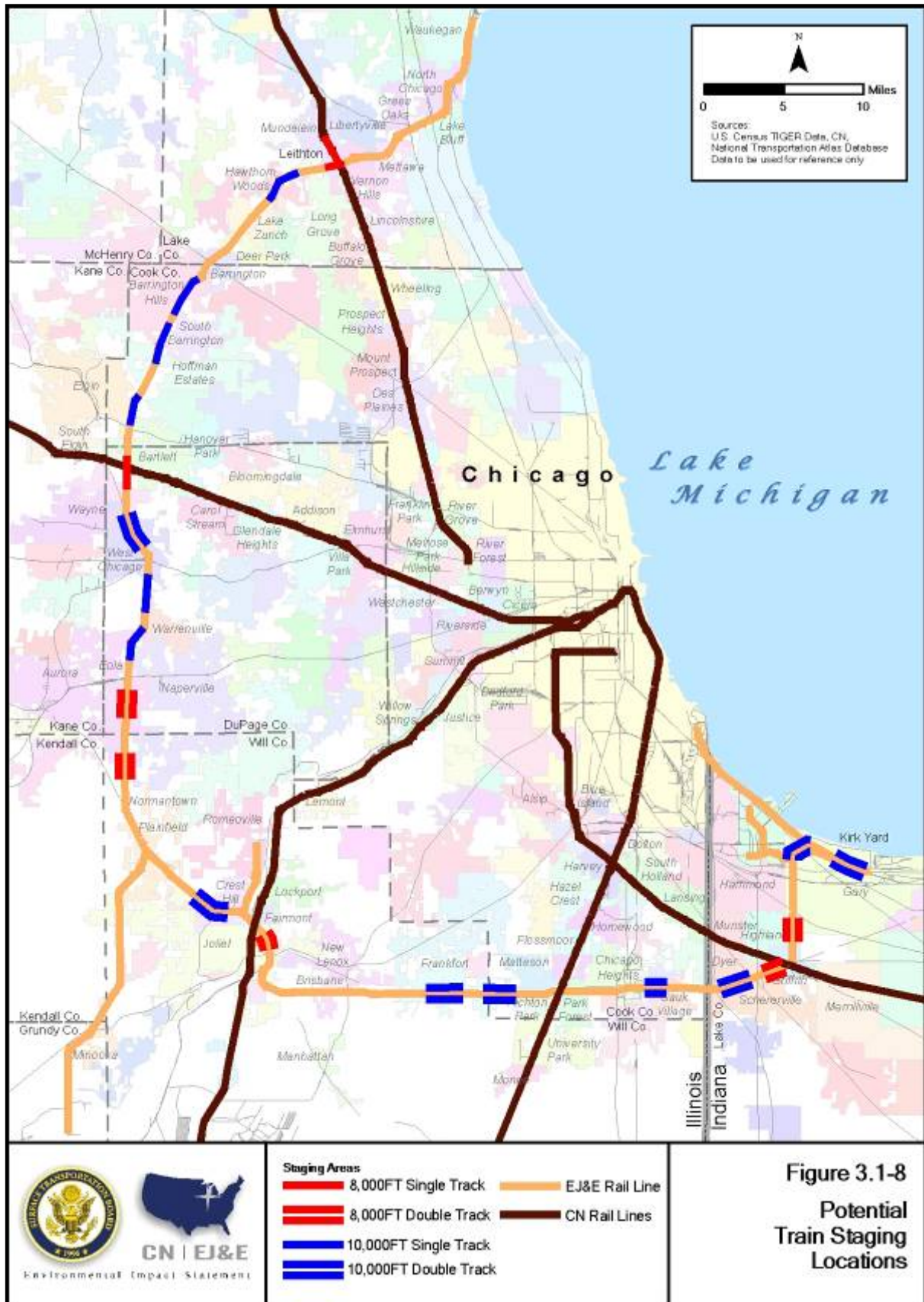
**Table 3.1-3. Potential Staging Locations for Trains (As a Function of Train Length)
Operating on the EJ&E Rail Line Between Leithton and Kirk Yard**

Community	From Crossing	To Crossing	Distance (feet)	Train Staging Potential	6,000-foot Train	8,000-foot Train	10,000-foot Train
New Lenox	Nelson Rd.	S. Cedar Rd.	5,280	NO			
	S. Cedar Rd.	Spencer Rd.	6,615	YES	X		
	Spencer Rd.	S. Schoolhouse Rd.	4,000	NO			
	S. Schoolhouse Rd.	116 th Ave.	7,885	YES	X		
	116 th Ave.	Wolf Rd.	2,660	NO			
Frankfort	Wolf Rd.	Center Rd.	10,850		X	X	X
	Center Rd.	W. Sauk Trail	4,350	NO			
	W. Sauk Trail	Pfeiffer Rd.	930	NO			
	Pfeiffer Rd.	S. Harlem Ave.	10,600	YES	X	X	X
	S. Harlem Ave.	Ridgeland Ave.	5,280	NO			
	Ridgeland Ave.	Central Ave.	5,280	NO			
	Central Ave.	Cicero Ave.	5,280	NO			
Matteson	Cicero Ave.	Main St.	8,125	YES	X		
	Main St.	Western Ave.	7,940	YES	X		
	Western Ave.	Euclid Ave.	7,970	YES	X		
	Euclid Ave.	Chicago Rd.	1,520	NO			
Chicago Hts	Chicago Rd.	S. Halstead St.	670	NO			
	S. Halstead St.	UP Chicago Hts CP	575	NO			
	Chicago Hts CP	East End Ave.	220	NO			
	East End Ave.	Wentworth Ave.	3,830	NO			
	Wentworth Ave.	State St.	1,315	NO			
	State St.	Cottage Grove Ave.	5,290	NO			
	Cottage Grove Ave.	Torrence Ave.	10,590	YES	X	X	X
	Torrence Ave.	E. Lincoln Hwy.	7,940	YES	X		
Indiana							
Dyer	E. Lincoln Hwy	Lake St.	1,460	NO			
	Lake St	Hart St.	720	NO			
	Hart St	CP East Dyer	755	NO			
	CP East Dyer	CP West Dyer	660	NO			
Scherverville	CP West Dyer	Airport Rd.	12,125	YES	X	X	X
	Airport Rd	CP Hartsdale	615	NO			
	CP Hartsdale	Kennedy Ave.	2,700	NO			
	Kennedy Ave.	CP East Griffith	8,655	YES	X	X	

**Table 3.1-3. Potential Staging Locations for Trains (As a Function of Train Length)
Operating on the EJ&E Rail Line Between Leithton and Kirk Yard**

Community	From Crossing	To Crossing	Distance (feet)	Train Staging Potential	6,000- foot Train	8,000- foot Train	10,000- foot Train
Griffith	CP East Griffith	CP West Griffith	2,200	NO			
	CP West Griffith	E. Main St.		NO			
	E. Main St	E. Lake St.	1,325	NO			
	E. Lake St	E. Miller St.	665	NO			
	E. Miller St	E. Elm St.	660	NO			
	E. Elm St	E. 45 th St.	2,640	NO			
	E. 45 th St	E. 40 th Place	3095	NO			
	E. 40 th Place	CP Van Loon N	8,520	YES	X	X	
	CP Van Loon N	CP Van Loon S	500	NO			
	CP Van Loon S	W. 25 th Ave.	1,100	NO			
	W. 25 th Ave	W. 15 th Ave.	5,280	NO			
	W. 15 th Ave	W. 9 th Ave.	2,640	NO			
	W. 9 th Ave	CP Ivanhoe N	1,085	NO			
	CP Ivanhoe N	CP Ivanhoe S	310	NO			
	CP Ivanhoe S	W. 5 th Ave.	975	NO			
	W. 5 th Ave	CP Cavanaugh	6,780	YES	X		
	CP Cavanaugh	CP Cavanaugh	630	NO			
	CP Cavanaugh	CP Stockton	5,020	NO			
	CP Stockton	CP Kirk Yd Jct	5,750	NO			
	W. 5 th Ave	CP Kirk Yd Jct	18,100	YES	X	X	X
	CP Kirk Yd Jct	CP Kirk Yd Jct	595	NO			
	CP Kirk Yd Jct	Buchanan	10,485	YES	X	X	X
Total Staging Locations by Train Length:					34	20	14

Sources: CN and GoogleEarth



3.1.2.9 *Current CN Train Operations*

CN trains operate in and out of Chicago over five rail line operating units (subdivisions), all of which intersect the EJ&E rail line.

- 1) The Waukesha Subdivision intersects EJ&E at Leithton in Illinois, connecting with CN's east/west transcontinental mainline at Winnipeg, Canada. Inside the EJ&E arc, the Waukesha Subdivision passes through Schiller Park, Illinois, before reaching Forest Park, Illinois. Here, all CN trains are routed onto tracks owned and operated by Baltimore and Ohio Chicago Terminal (BOCT) or Indiana Harbor Belt (IHB).
- 2) The Freeport Subdivision intersects EJ&E at Munger in Illinois, connecting with CN's trains serving northern Illinois, Iowa, and Nebraska. Inside EJ&E's arc, the Freeport Subdivision passes through Bridgeport Yard before reaching the St. Charles Air Line in downtown Chicago.
- 3) Joliet Subdivision intersects EJ&E at Joliet. This subdivision handles Midwest Generation trains between Joliet and south Joliet. Inside EJ&E's arc, the Joliet Subdivision passes through Glenn Yard before connecting with the Freeport Subdivision at Bridgeport in Illinois.
- 4) The Chicago Subdivision intersects EJ&E at Matteson, Illinois, connecting with CN's north/south corridor, which provides service to Memphis, Tennessee, and New Orleans, Louisiana. Inside EJ&E's arc, the Chicago Subdivision passes through Markham Yard before swinging along the lakefront and terminating at 16th Street.
- 5) The Elsdon Subdivision (inside the arc) and South Bend Subdivision (outside the arc) intersect EJ&E at Griffith, Indiana, connecting with CN's mainline through Michigan to Canada via CN's recently reconstructed tunnel under the St. Clair River at Port Huron/Sarnia in Michigan. Inside EJ&E's arc, the Elsdon Subdivision passes through Harvey and Blue Island Junction, Illinois, before reaching tracks owned and operated by IHB, BOCT, and the Belt Railway Company of Chicago (BRC).

CN operates four rail yards in the Chicago area and relies on the use of a fifth yard, Clearing Yard (located near Midway Airport), operated by BRC. CN's major yards are Markham, Glenn, and Hawthorne. Schiller Park, another CN yard, is located near O'Hare Airport and is used to temporarily hold trains awaiting an opportunity to be switched in Clearing Yard. Intermodal yard facilities are located at Markham Yard. CN has trackage rights over the EJ&E rail line at several locations. CN currently operates one train daily each way on the EJ&E rail Line between Griffith, Indiana and Matteson, Illinois, and between Munger and Spaulding, Illinois.

CN's current operation in the Chicago area crosses many rail/rail at-grade crossings inside the EJ&E rail line arc. These crossings are listed in Table 3.1-4, below. At the rail crossings that experience significant crossing traffic, train delay due to trains waiting for opposing traffic often occurs.

Table 3.1-4. CN Rail/Rail Crossings

Crossing Name	CN Subdivision and Milepost	Crossing Railroad	Current CN Traffic (TPD)	Passenger Trains on CN Rail Line (TPD)	Passenger Trains on CN Rail Line Crossed (TPD)	Freight Trains Crossing CN (TPD)
Illinois						
Tower B-12	Waukesha 15.5	CP/Metra	19.3	0	58 Metra	46
Deval	Waukesha 23.4	UP/Metra	19.1	22 Metra	65 Metra	10
21st Street	Freeport 2.0	Amtrak	6.4	0	12 Amtrak	0
Ash Street	Freeport 5.6	CSXT, NS	2.5	0	0	10
IN Crossing	Freeport 7.1	BNSF	2.5	0	0	10
Belt Crossing	Freeport 8.3	BRC	4.5	0	0	10
16th Street	Chicago 1.5	Metra	4.6	6 Amtrak	68 Metra	0
Kensington	Chicago 14.5	NICTD	8.4	6 Amtrak	38 NICTD	0
Panhandle	Joliet 5.1	CSXT/NS	2.1	6 Metra 10 Amtrak	0	10
Corwith	Joliet 6.6	BNSF	2.1	6 Metra 10 Amtrak	0	10
Lemoyne	Joliet 7.9	BRC	2.1	6 Metra 10 Amtrak	0	10
CP Canal/Argo	Joliet 13.1	CSXT/IH B	5.8	6 Metra 10 Amtrak	0	10
Hayford	Elsdon 11.8	BRC	3.4	0	0	90
Ashburn	Elsdon 12.8	NS/Metra	3.4	0	30 Metra	10
BI Jct./Blue Island	Elsdon 19.3	IHB	3.4	0	0	18
Indiana						
Thornton Jct	Elsdon 25.2	UP	19.5	0	0	48
Hays	Elsdon 34.0	NS	19.5	0	0	11

Source: Applicants (2007a), STB Finance Docket No. 35087, Canadian National Railway Company and Grand Trunk Corporation—Control—EJ&E West Company, Railroad Control Application, October 30, 2007.

3.1.3 Commuter and Intercity Passenger Rail Operations

3.1.3.1 *Metra*

Metra, the commuter rail division of the Regional Transportation Authority (RTA), operates commuter passenger trains on railroad corridors serving six counties in northeastern Illinois. Operating on 11 different rail lines in the Chicago metropolitan area, Metra provides a vital transportation link for commuters who work in downtown Chicago and live in outlying suburban communities. The reverse commute market for commuters who live in downtown Chicago and work in outlying communities has increased in recent years, prompting Metra to explore new service options for the commuters and businesses in the region (RTA 2006). Metra is a viable alternative to automobile commuting in the region—the Metra network provides approximately 305,000 passenger trips on a typical weekday (see Table 2-6, Metra Rail Lines, in Chapter 2) (Metra 2007b). Figure 3.1-9, below, shows Metra's existing service routes.



Metra trains operate on rail lines owned by Metra or on rail lines owned by various freight railroads (Metra 2007a). Ten of Metra's 11 commuter routes are operated with conventional diesel locomotives and passenger cars that have two seating levels. Each diesel-operated Metra train uses a cab car at one end. Inbound trains to Chicago are operated from the locomotive, and outbound trains are operated from the cab car. This arrangement allows trains to operate without turning the trains at the terminal stations. All diesel-operated Metra trains operate on lines also carrying freight trains. On some Metra-owned rail lines, local freight rail operators provide service to rail shippers located along the corridor. Metra passenger service operates in accordance with the various agreements between Metra and the freight railroads that own some of the lines on which Metra operates. Metra and the freight railroads understand that close daily coordination is required to protect the interests of both operations. Metra trains are generally given priority over freight trains (Applicants 2007a).

The Metra Electric District operates electrically-powered trains. These Electric District trains operate on dedicated passenger tracks and rights-of-way. The Metra Electric District tracks are parallel to, but independent of, the CN Chicago Subdivision line between Chicago and University Park, Illinois.

Existing Metra Service on Rail Line Segments Controlled by CN

Metra's Heritage Corridor Service operates six weekday trains between Joliet and Chicago during weekday morning and evening peak periods. Heritage Corridor trains do not operate on weekends. Heritage Corridor trains operate on CN's Joliet and Freeport subdivisions between Joliet and 16th Street in Chicago. North of 16th Street, Heritage Corridor service trains use tracks owned by Amtrak to enter Union Station. Ten daily Amtrak trains also follow this route.

Metra's existing North Central Service operates 22 weekday trains between Chicago and Antioch, Illinois, during weekday morning and evening peak periods. Two midday round trips during non-peak hours are also operated on weekdays. North Central trains do not operate on weekends. North Central trains operate on CN's Waukesha Subdivision between Leighton and Tower B-12 in Franklin Park, Illinois. East of Tower B-12, North Central trains use tracks owned by Metra and Amtrak to enter Union Station.

Metra does not operate commuter trains on the EJ&E rail line.

Existing and Expanded Metra Service on Rail Lines that Cross EJ&E Rail Line Segments At-Grade

Metra trains operate on four railroad corridors that cross the EJ&E rail line using at-grade crossing diamonds. Metra's UP-Northwest Line crosses the EJ&E rail line in Barrington, Illinois. Metra's Milwaukee District West Line cross the EJ&E rail line in Spaulding, Illinois. Metra's UP-West Line trains cross the EJ&E rail line in West Chicago. Metra's Rock Island District line cross the EJ&E rail line at Rock Island Tower in Joliet, Illinois. At these locations, known as interlockings, the tracks physically cross each other using at-grade crossing diamonds. Table 3.1-5, below, lists the numbers of weekday Metra trains that cross the EJ&E rail line at these locations, along with the company or agency owning the intersecting track.

Table 3.1-5. EJ&E and Metra Rail/Rail At-Grade Crossings						
Location	EJ&E MP	Intersecting Railroad	Metra Route Crossed	Number of Tracks	Daily EJ&E Freight Trains	Weekday Metra Trains
Barrington	W-49.6	UP	UP-Northwest Line	UP 2 EJ&E 1	5.3	62
Spaulding	W-37.5	CPR	Milwaukee District West Line	CPR 2 EJ&E 1	5.5	49
West Chicago	W-28.9	UP	UP-West Line	UP 3 EJ&E 1	10.7	52
Joliet-Rock Island Tower	E-0.8	Metra	Rock Island District	Metra 2 EJ&E 2	6.4	46

Source: Applicants (2007a), STB Finance Docket No. 35087, Canadian National Railway Company and Grand Trunk Corporation—Control—EJ&E West Company, Railroad Control Application, October 30, 2007.

Metra trains also operate on seven other rail lines that cross the EJ&E rail line using grade-separated structures.

Proposed Metra Service that Potentially Affects the EJ&E Rail Line

Metra is working with the Federal Transit Administration (FTA), the Chicago Metropolitan Agency for Planning (CMAP), and IDOT to study the feasibility of increasing the frequency of service along two corridors and to launch new service along two different corridors (Metra 2003a). These corridors include the UP-Northwest Line, UP-West Line, Suburban Transit Access Route (STAR) Line, and SouthEast Service. SEA considers implementation of these service expansions and additions to be reasonably foreseeable actions. All four proposed service expansions would potentially affect, as discussed below, the EJ&E alignment around Chicago.

Although the documents titled *Metra Proposed TEA-21 Reauthorization Initiatives* (Metra 2003a) and *Northeastern Illinois Transportation Challenges* (Metra 2002) contain the most detail about each of the proposed service expansions, CMAP's *Transportation Improvement Program for Northeastern Illinois, FY 2007-2012* (2007-2012 TIP) (CMAP 2006b) and *2030 Regional Transportation Plan for Northeastern Illinois* (2030 RTP) (CMAP 2008a) also list the four proposed service expansions.

From north to south, Metra's proposed commuter service expansions include the following:

- Adding service to Metra's existing UP Northwest Line corridor, which crosses the EJ&E rail line at grade in Barrington, Illinois
- Adding service to Metra's existing UP West Line corridor, which crosses the EJ&E rail line at grade in West Chicago
- Initiating a new commuter service, the STAR Line, within the EJ&E corridor between Joliet and Hoffman Estates, Illinois
- Inaugurating the SouthEast Service between Chicago's Union Station and Crete, Illinois, along the joint UP and CSX corridor (formerly Chicago and Eastern Illinois Railroad), which extends south from Chicago and crosses the EJ&E rail line in Chicago Heights

Metra's UP Northwest Line Service

Metra anticipates increasing service along the UP-owned and -operated Northwest Line corridor. Metra currently operates approximately 62 weekday commuter trains that travel through the EJ&E at-grade crossing diamond in Barrington. Metra plans to add 12 weekday trains to this corridor (Metra 2002). This would increase the number of weekday Metra trains through Barrington to 74. In addition, UP operates five to six daily freight trains on this corridor. Although Metra has no changes

planned for the at-grade crossing diamond in Barrington, Metra envisions making improvements along the UP Northwest Line corridor to support the increased traffic levels. The feasibility study that identified the improvements necessary to expand this service has been completed, alternatives analysis is underway, and FTA New Starts funding is being sought (Metra 2003a; CMAP 2006b and 2008a).

What is New Starts funding?

New Starts funds are grants and generally require local matching funds. Projects eligible for New Starts (49 USC 5309) funding from FTA include rapid rail, light rail, commuter rail, automated guideway transit, people movers, and exclusive facilities for buses (such as bus rapid transit) and other high-occupancy vehicles.

Metra's UP-West Line Service

Metra anticipates increasing service along the UP-owned West Line corridor. Metra now operates approximately 52 weekday commuter trains that travel through the EJ&E at-grade crossing diamond in West Chicago. Metra plans to add approximately 12 weekday trains to this corridor. This would increase the number of weekday Metra trains through West Chicago to 64 (Metra 2002). In addition, this corridor accommodates more than 50 UP freight trains that now operate east-west across the West Chicago rail/rail at-grade crossing. Metra envisions making improvements along the UP West Line corridor to support the increased traffic levels. The feasibility study that identified the improvements necessary to expand this service has been completed, alternatives analysis is underway, and FTA New Starts funding is being sought (Metra 2003a; CMAP 2006b and 2008a).

Metra STAR Line

As noted previously, Metra operates a commuter rail system with an emphasis on moving commuters between downtown Chicago and outlying suburban communities. Metra does not now operate any suburb-to-suburb service, nor does Metra operate any service that connects the various segments of its system. Metra has evaluated the feasibility of a proposed outer circumferential commuter rail route that would use major portions of EJ&E trackage to provide suburb-to-suburb service. This proposed service is known as the STAR Line. Metra has completed a number of planning studies for the proposed STAR Line, including the *Outer Circumferential Commuter Rail Feasibility Study* (T.Y. Lin International 1999) and the *STAR Line (Suburban Transit Access Route) Feasibility Study for a Metra Commuter Rail Service System* (Metra 2003b). The 2007-2012 TIP (CMAP 2006b) and the 2030 RTP (CMAP 2008a) also list the STAR Line. Metra has had discussions with EJ&E regarding initiation of this service prior to the Application, but Metra has not entered into any formal agreements with EJ&E or the Applicants for operating commuter passenger trains on any proposed STAR Line segments (T.Y. Lin International 1999). To date, alternatives analysis is underway, and FTA New Starts funding is being sought.

Initially, Metra envisions that the STAR Line would operate on a portion of the EJ&E rail line (T.Y. Lin International 1999). Figure 3.1-10, below, shows the proposed STAR Line segments that would use EJ&E rail line segments. Metra proposes that initial STAR Line service would operate on the Outer Circumferential Segment (OCS), which would include the EJ&E rail line between Hoffman Estates and Joliet, Illinois. The initial EJ&E segment between Hoffman Estates and Joliet begins on rail line segment No. EJE-13 in Hoffman Estates near EJ&E MP W-42.3, near the Northwest Tollway (Interstate 90 [I-90]) underpass. Two alternative connections are being considered, one north of the Northwest Tollway and one south of the Northwest Tollway. The southern terminus of the STAR Line would be near Joliet on rail line segment No. EJE-9 near EJ&E MP W-6.1, just west of the Division Street highway/rail at-grade crossing in Crest Hill, Illinois. Nine Illinois communities along the OCS would have passenger stations on the STAR Line: Hoffman Estates, Bartlett, Elgin, West Chicago, Aurora, Warrenville, Naperville, Plainfield, and Joliet (Metra 2008c).



Initial STAR Line service also would include the Northwest Corridor Segment (NWCS). The NWCS would begin at a new connection with the EJ&E rail line in Hoffman Estates and new trackage within the I-90 ROW that would extend to Mannheim Road. East of Mannheim Road, the NWCS would use two of the Applicants' rail line segments (Nos. CN-21 and CN-20) to gain access to a proposed new station at Chicago O'Hare International Airport (Metra 2008c).

Metra's proposed initial STAR Line service would provide a transit alternative for suburb-to-suburb commuters who live and work along the proposed route. Initial STAR Line service would connect with existing Metra service at three locations on the EJ&E rail line: the BNSF Railway Line in Eola, the UP West Line in West Chicago, and the Milwaukee District West Line in Spaulding. These connections would provide additional benefits for suburb-to-suburb commuters, who could use combinations of existing Metra service routes and the proposed STAR Line route (Metra 2008c).

Metra has identified two additional EJ&E rail line segments for future expansion of STAR Line service. The STAR Line North segment would connect with the initial STAR Line service in Hoffman Estates and would provide service north to Waukegan. The STAR Line East segment would connect with the initial STAR Line service in Joliet and would provide service east to Lynwood (Metra 2008c). Because planning is preliminary and is not expected to be completed in the foreseeable future, SEA does not consider either of these segments to be reasonably foreseeable.

SouthEast Service

Metra has studied a new commuter rail service that would operate on the UP-CSX shared corridor between Chicago's Union Station and Crete, Illinois. Known as the SouthEast Service, it would provide a transit alternative for residents of southern Will County, Illinois. The proposed SouthEast Service would cross EJ&E rail line segment No. EJE-6 at EJ&E MP E-25.2 in Chicago Heights (Metra 2003a). Some communities have evaluated station sites for the proposed service. An initial feasibility study is complete, alternatives analysis is underway, and FTA New Starts funding is being sought (CMAP 2006b and 2008a).

3.1.3.2 Northern Indiana Commuter Transportation District (NICTD)

NICTD operates electrified commuter passenger trains on the South Shore Line between South Bend, Indiana, and Randolph Street Station in Chicago. Currently, NICTD operates 37 South Shore Line trains each weekday. Figure 3.1-11, below, shows the existing NICTD route.

Existing NICTD Service on Rail Lines that Cross CN Rail Line Segments At-Grade

NICTD trains operate on NICTD tracks in NICTD right-of-way between South Bend and a rail junction point near the intersection of Kensington Avenue and South Cottage Grove Avenue in Chicago. NICTD trains cross CN's Chicago Subdivision at this intersection and then use the Metra Electric District route to Randolph Street Station.



Proposed NICTD Service that Potentially Affects CN and EJ&E Rail Lines

NICTD is considering two new West Lake Corridor commuter rail services between Chicago and communities in northwest Indiana. Trains for both proposed services would use existing Metra and NICTD trackage through Kensington to Hammond, Indiana. At Hammond, the trains would enter a currently inactive rail corridor that is controlled by NICTD. This corridor would be restored to active service for NICTD service from Hammond south to Maynard, Indiana, near Munster, Indiana. At Maynard, NICTD trains operating between Chicago and Valparaiso, Indiana, would use the CN South Bend Subdivision between Munster and Valparaiso; this service would cross the EJ&E rail line at Griffith, Indiana. At Maynard, service between Chicago and Lowell, Indiana, would use CSX tracks between Munster and Lowell. This service would cross the CN South Bend Subdivision at Maynard and the EJ&E rail line at Dyer, Indiana (STV Incorporated 2006a and 2006b).

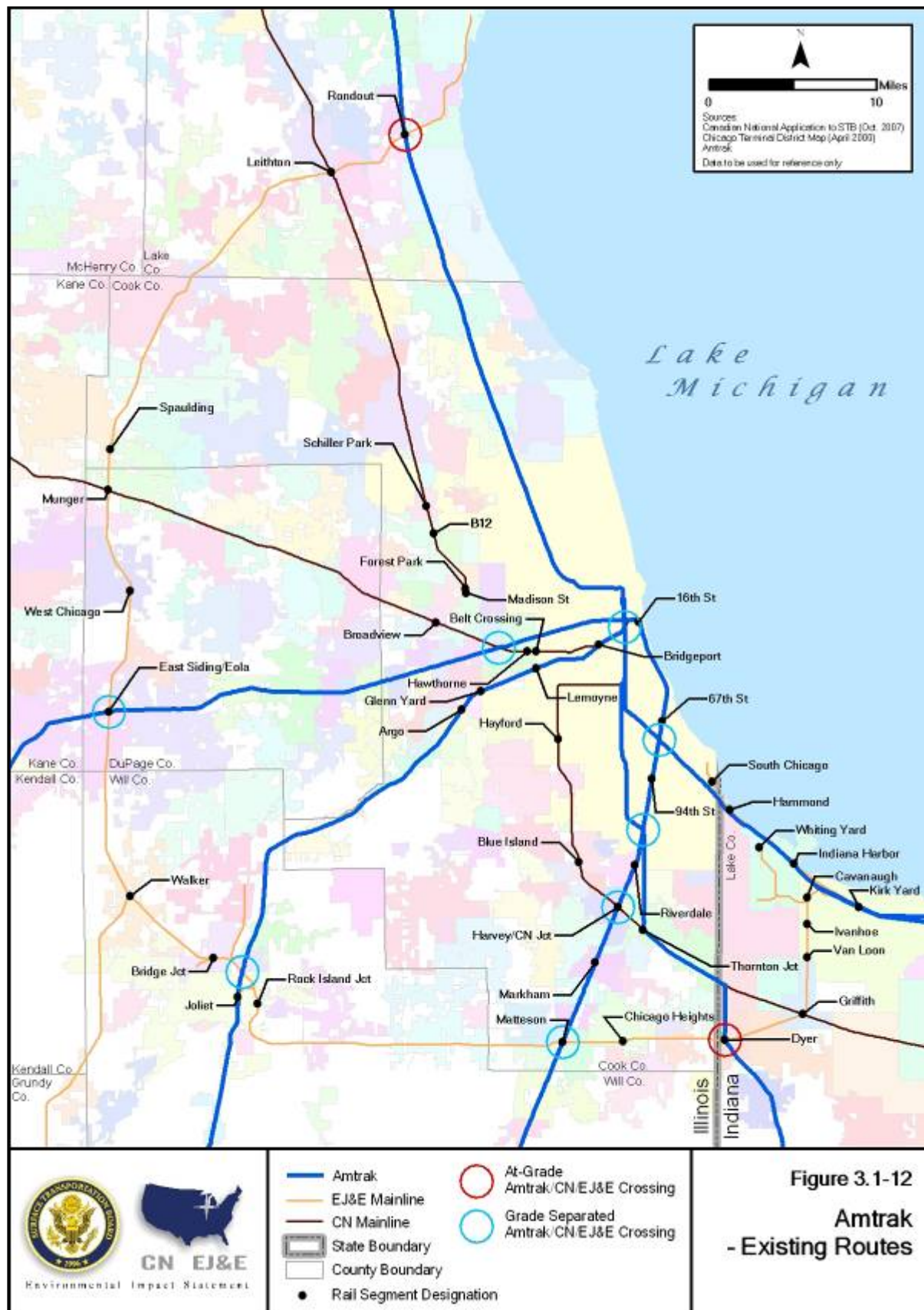
NICTD has prepared two planning documents for these proposed West Lake Corridor commuter services: *Purpose and Need Report, Final Draft* (STV Incorporated 2006a) and *Definition of Alternatives, Draft Report* (STV Incorporated 2006b). These documents identify the purpose of and need for the proposed services and describe rail and bus alternatives for the proposed services. To date, NICTD has not committed to the rail alternative and has not identified any funding sources for planning and implementation of the proposed services. No agreements have been negotiated between NICTD and CN for the proposed services. The Northwestern Indiana Regional Planning Commission (NIRPC) *Connections 2030 Regional Transportation Plan* (NIRPC 2007a), which includes the West Lake Corridor Service, was adopted by the NIRPC Executive Board on June 21, 2007. The plan states that the locally preferred alternative is being developed, that the environmental assessment has been conducted, and that FTA submittals will continue in FY 2008. However, the West Lake Corridor projects are not listed in the *Northwest Indiana Transportation Improvement Program for Federal Fiscal Years 2008-2011* (NIRPC 2007b), which was adopted by the NIRPC Board of Commissioners on June 21, 2007. In these circumstances, SEA determined that potential implementation of is not a reasonably foreseeable future action.

3.1.3.3 Amtrak

Amtrak operates a network of intercity passenger trains throughout the United States. Chicago's Union Station and its associated maintenance facilities function as Amtrak's Midwestern hub for regional and long distance passenger trains. Although Amtrak operates on some Amtrak-owned trackage in Chicago, Amtrak trains operate primarily on rail lines owned by the various freight railroads. Amtrak passenger service operates within a framework of agreements between Amtrak and each freight railroad, and close working relationships have developed over the years.

Existing Amtrak Service on Rail Line Segments Controlled by the Applicants

Amtrak operates six daily trains on CN's Chicago Subdivision between Matteson and 16th Street in Chicago; Figure 3.1-12, below, shows Amtrak's routes on CN rail lines. These trains include two *Illini* trains, two *Saluki* trains, and two *City of New Orleans* trains. Amtrak trains use the St. Charles Air Line, an east-west route, to access Union Station from CN's Chicago Subdivision. The Air Line consists of two separate segments and is jointly owned by CN, BNSF, and UP. The segment of CN's Chicago Subdivision that is part of the Air Line runs north of and parallel to 16th Street, extending approximately 0.5 mile from Prairie Avenue (MP 2.0) to the 16th Street interlocking (MP 1.5) near 16th Street and Clark Street. At the 16th Street interlocking, the CN Chicago and Freeport subdivisions connect, and the second segment of the Air Line heads the west. This segment extends approximately 0.4 mile from the 16th Street interlocking to the Union Avenue interlocking on the BNSF. This segment of the Air Line crosses the Chicago River and crosses over the Amtrak and BNSF leads to Union Station. Figure 3.1-13, following Figure 3.1-12, shows the two Air Line segments.





At the Union Avenue interlocking, Amtrak trains must make a reverse move to enter or exit Union Station. Northbound Amtrak trains travel westbound across both segments of the Air Line beyond the Union Avenue interlocking and then reverse direction to back into Union Station. Similarly, southbound Amtrak trains back out of Union Station to the Union Avenue interlocking, then reverse direction to head east on the Air Line and onto the CN Chicago Subdivision. The Air Line was once used by various railroads to gain access to Chicago passenger stations that no longer exist. According to Amtrak, no viable alternate route is available for Amtrak trains coming from CN's Chicago Subdivision to Union Station.

As part of the Chicago CREATE initiative, an alternate route is being considered for Amtrak trains that now use the CN Chicago Subdivision. The alternative would include a new connection at a location known as Grand Crossing (CREATE 2005). This new connection and route details are currently in the planning phase, and funding sources have not yet been identified. The Strategic Regional Freight System, which is part of the 2030 RTP, includes implementation of the CREATE rail corridor development plan. However, because of the limited progress to date, SEA has determined that implementation of the Grand Crossing connection and routing of Amtrak trains off the CN Chicago Subdivision are not reasonably foreseeable future actions.

Amtrak also operates 10 daily trains on CN's Joliet and Freeport subdivisions between Joliet and 16th Street in Chicago—eight Lincoln service trains and two Texas Eagle Trains. North of 16th Street, these Amtrak trains use trackage owned by Amtrak to enter directly into Union Station. Six weekday Metra trains also use this route (Amtrak 2008a).

Amtrak operates four round-trip Hoosier State trains per week and three round-trip Cardinal trains per week for an average of two Amtrak train movements per day. These trains operate on multiple railroads' tracks between Union Station in Chicago and Thornton Junction, including the CN Elsdon Subdivision between Thornton Junction and Maynard near Munster, Indiana. South of Maynard, these Amtrak trains use the CSXT corridor that crosses the EJ&E at-grade using interlockings in Dyer, Indiana (Amtrak 2008a).

Amtrak does not operate intercity passenger trains on any EJ&E rail line segments.

Existing Amtrak Service on Rail Lines that Cross EJ&E Rail Line Segments At-Grade

Amtrak operates 16 daily trains that cross the EJ&E rail line using at-grade interlockings with the CP line in Rondout, Illinois. These include 14 daily Hiawatha service trains and two daily Empire Builder trains (Amtrak 2008a).

The Amtrak Hoosier State and Cardinal trains use the CSXT corridor that crosses the EJ&E at-grade using interlockings in Dyer, Indiana (Amtrak 2008a).